AMENDED CLAIMS

Pending claims 1-16 are canceled without prejudice. They are replaced by the originally filed PCT priority claims 1-36 appearing below. Applicant has not renumbered the claims for the sake of clarity.

We claim:

1. (Originally Presented) A method for laser vision correction, comprising providing a controlled biodynamic response in corneal tissue of an eye by inflicting a controlled trauma to an exposed corneal surface outside an identified optical zone for a myopia correcting nominal laser ablation of the cornea.

2. (Originally Presented) The method of claim 1, wherein providing the controlled biodynamic response includes a flattening of the corneal surface over at least a central portion of the optical zone.

3. (Originally Presented) The method of claim 1, wherein inflicting the controlled trauma comprises laser ablating a portion of the exposed corneal surface.

4. (Originally Presented) The method of claim 3, wherein laser ablating a portion of the exposed corneal surface comprises ablating at least a portion of a ring of corneal tissue having a circular or an acircular shape.

5. (Originally Presented) The method of claim 4, wherein the at least a portion of the ablation ring has an inner boundary adjacent an outer boundary of the optical zone.

6. (Originally Presented) The method of claim 5, wherein the inner boundary of the at least a portion of the ablation ring begins at a distance, d, from the outer boundary of the optical zone, where $200\mu m \leq d \leq 600\mu m$.

7. (Originally Presented) The method of claim 4, comprising ablating the at least a portion of the ring to a depth, t, where $10\mu m \leq t \leq 70\mu m$, and having a width, w.

8. (Originally Presented) The method of claim 7, wherein t and w are variable as a function of biodynamic ablation location on the cornea.

9. (Originally Presented) The method of claim 7, wherein w is a function of the laser beam diameter on the cornea.

10. (Originally Presented) The method of claim 7, wherein w has a nominal value of about 1mm.

11. (Originally Presented) The method of claim 4, comprising ablating the at least a portion of the ring within a transition zone of the nominal ablation of the cornea.

12. (Originally Presented) The method of claim 1, wherein providing the controlled biodynamic response comprises creating a tissue ablation volume for a desired refractive correction that is less than a corresponding tissue ablation volume for the desired refractive correction in the absence of the controlled biodynamic response.

13. (Originally Presented) The method of claim 12, wherein the lessened tissue ablation volume has a smaller ablation depth over the optical zone than a corresponding ablation depth over the optical zone in the absence of the controlled biodynamic response.

14. (Originally Presented) The method of claim 1, wherein providing the controlled biodynamic response comprises empirically determining the controlled biodynamic response from a statistically significant population.

15. (Originally Presented) The method of claim 1, wherein providing the controlled biodynamic response comprises delivering a plurality of photoablative light pulses onto the corneal surface, all of which have only a 1mm diameter.

16. (Originally Presented) The method of claim 15, wherein the plurality of photoablative light pulses have a direct aperture transmission portion and a diffractive aperture transmission portion so as to produce a soft-spot beam intensity profile.

17. (Originally Presented) A method for a LASIK or a LASEK myopia correction, comprising:

ablating a volume of corneal tissue outside an optical zone of a nominal ablation region of the cornea.

18. (Originally Presented) The method of claim 17, wherein the volume of ablated corneal tissue is in the form of at least a portion of a ring of ablated corneal tissue having a circular or an acircular shape.

19. (Originally Presented) The method of claim 18, wherein the at least a portion of the ring has an inner boundary adjacent an outer boundary of the optical zone.

20. (Originally Presented) The method of claim 19, wherein the inner boundary of the at least a portion of the ablation ring begins at a distance, d, from the outer boundary of the optical zone, where $200\mu m \leq d \leq 600\mu m$.

21. (Originally Presented) The method of claim 20, comprising ablating the at least a portion of the ring to a depth, t, where $10\mu m \leq t \leq 70\mu m$, and a width, w.

22. (Originally Presented) The method of claim 21, wherein t and w are variable as a function of biodynamic ablation location on the cornea.

23. (Originally Presented) The method of claim 21, wherein w is a function of the laser beam diameter on the cornea.

24. (Originally Presented) The method of claim 21, wherein w has a nominal value of about 1mm.

25. (Originally Presented) The method of claim 24, comprising ablating the at least a portion of the ring within a transition zone of the nominal ablation of the cornea.

26. (Originally Presented) The method of claim 17, wherein ablating the volume of corneal tissue comprises creating a tissue nominal ablation volume in the optical zone for a desired refractive correction that is less than a corresponding tissue nominal ablation volume in the optical zone for the desired refractive correction in the absence of the controlled biodynamic response.

27. (Originally Presented) The method of claim 26, wherein the lessened tissue nominal ablation volume has a smaller ablation depth over the optical zone than a corresponding ablation depth over the optical zone in the absence of ablating the volume of corneal tissue.

28. (Originally Presented) In an improved device readable medium having stored therein an executable instruction for directing an ophthalmic vision correcting laser platform to deliver a myopia correcting nominal ablation in an optical zone of a corneal surface,

the improvement comprising an executable instruction stored in the medium for directing the ophthalmic vision correcting laser platform to deliver a myopia correction enhancing biodynamic ablation in the corneal surface outside of the optical zone.

29. (Originally Presented) The device readable medium of claim 28, wherein the biodynamic ablation has the form of at least a portion of a ring having an inner

boundary adjacent an outer boundary of the optical zone, wherein the ring has a circular or an acircular shape.

30. (Originally Presented) The device readable medium of claim 29, wherein the inner boundary of the biodynamic ablation is separated from the outer boundary of the optical zone by a distance, d, where $200\mu m \leq d \leq 600\mu m$.

31. (Originally Presented) The device readable medium of claim 29, wherein the at least a portion of the ring has a depth, t, where $10\mu m \leq t \leq 70\mu m$, and a width, w.

32. (Originally Presented) The device readable medium of claim 31, wherein t and w are variable as a function of biodynamic ablation location on the cornea.

33. (Originally Presented) The device readable medium of claim 31, wherein w is a function of the laser beam diameter on the cornea

34. (Originally Presented) The method of claim 29, wherein w has a nominal value of about 1mm.

35. (Originally Presented) The device readable medium of claim 29, wherein the at least a portion of the ring is located within a transition zone of the nominal ablation of the cornea.

36. (Originally Presented) The device readable medium of claim 29, wherein the controlled delivered biodynamic ablation comprises a plurality of photoablative light pulses delivered to the corneal surface, all of which have only a 1mm diameter.